Text Amendment #15009
Documents submitted during public testimony on August 19, 2015.

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13.018 Commercial Wind Energy Conversion System (CWECS)

* * *

(g) Setbacks to the turbine base:

1) For a non-participating lot of 20 acres or less ~~than 10 acres~~, the setback shall be ~~1,000~~ 2,640 feet or ~~3~~ 5 times the turbine height (hub height plus the rotor radius), whichever is greater, measured to the property line.

2) For non-participating lot of greater than 20 acres ~~10 acres or greater~~, when there is a dwelling unit on the lot, the setback shall be ~~1,000~~ 2,640 feet or ~~3~~ 5 times the turbine height, whichever is greater, measured to the closest exterior wall of the dwelling unit.

3) For participating dwelling units, the setback shall be 1,000 feet to the closest exterior wall of the dwelling.

4) The setback to any public right-of-way or private roadway shall be no less than the turbine height.

5) Setbacks to the external boundary of the special permit area shall be no less than the turbine height, except that the owner of the adjacent property may sign an agreement allowing that setback to be reduced to the rotor radius plus the setback of the zoning district.

* * *

Requested by: SEACREST & KALKOWSKI, PC, LLO on behalf of Lancaster County Property Owners

Nebraska Chapter
SIERRA CLUB
FOUNDED 1892

P.O. Box 4664, Omaha, NE 68104
http://sierranebraska.org/
www.facebook.com/NebraskaSierraClub

August 19, 2015

Lincoln-Lancaster County Planning Commission
County City Building
Lincoln, NE 68508

RE: Proposed Wind Zoning Rules

Dear Members of the Planning Commission:

The Nebraska Sierra Club supports reasonable standards for the siting of wind development projects that take into account impacts on human health, wildlife, wildlife habitat and native grasslands. However, we suggest that all such standards meet objectively verifiable criteria. We also suggest that all energy generation sources be required to meet such criteria.

The primary issue that we wish to address regarding wind development is sound or noise. To date no scientifically valid study has found a connection between negative health impacts and the sounds of wind turbines. In particular there is no demonstrated causal connection between negative health impacts and the sound level being proposed. The most that can be said is that there appears to be the potential for annoyance.

Annoyance is extremely subjective. What one person finds pleasing another may find annoying, ranging across a wide spectrum of experience. If the Lincoln-Lancaster County Planning Commission decides to go down this road it is likely to lead to a host of unintended consequences, ranging from litigation based on the arbitrariness of this standard, to numerous attempts to limit other activities based on annoyance. We expect that very few commercial, industrial or entertainment activities would be able to avoid claims that they should be limited or prevented based on annoyance. In addition many commercial, industrial and entertainment venues would fail to meet the proposed sound standards for wind development.

We recommend that Lancaster County adopt sound standards for wind development that are consistent with standards of other counties in Nebraska and Iowa.

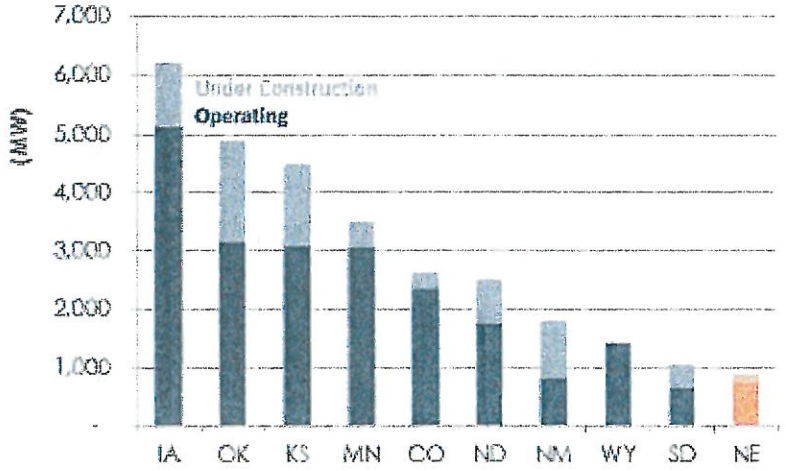
Sincerely,

Kenneth C. Winston
Nebraska Sierra Club

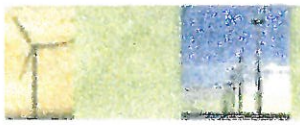
KEN HAAR

Figure 19 (Brattle Report, p 43)

Wind Generation Operating and Under Construction by State



Source and notes: Ventyx 2014. Texas, which has not been included in the figure above, has 12,700 MW of operating capacity and an additional 5,300 MW under construction. This figure does not yet include the 400 MW Grand Prairie wind facility under contract with OPPD as it is still in early-phase development, as indicated in Table 3.



Nebraska's Export Opportunity

What is the value of "export" wind development to Nebraska?

Future Wind Expansion (MW)	1,000
Total Project Investment	$ 1,700,000,000

Annual State Personal Income Tax Increase ($11,000/MW impact, 5% tax rate)*	$	550,000
Annual Property Tax Increase (100% assessment, 2% tax rate)	$	1,495,000
Annual Nameplate Capacity Tax Revenue Increase ($3,518/MW)	$	3,518,000
Total Annual Revenue Increase	$	5,563,000
20 Year "Nebraska" Tax Revenue Increase	**$**	**111,260,000**
Addt'l New Jobs for Rural Nebraska (.48/MW)*		**480**

Increase in Nebraska Wealth Due to Land Owner Royalties		
LO Royalties ($/MW)	$	8,000
Annual LO Royalties	$	8,000,000
20-Year Royalties	**$**	**160,000,000**

These are direct payments to rural Nebraskans!

Analysis does not include the additional and substantial positive impacts of "second tier" economic activities.

TRADEWIND ENERGY
Harvesting the Power of the Wind

What are DIRECT, INDIRECT and INDUCED EFFECTS?

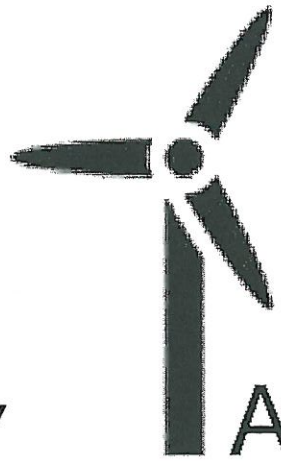
Most approaches for quantifying local economic impacts characterize economic impacts based on direct, indirect, and induced effects. The same terms are used in computable general equilibrium and hybrid macroeconomic models.

DIRECT effects are changes in sales, income, or jobs associated with the on-site or immediate effects created by an expenditure or change in final demand; for example, the employment and wages for workers who assemble wind turbines at a manufacturing plant.

INDIRECT effects are changes in sales, income, or jobs in upstream-linked sectors within the region. These effects result from the changing input needs in directly affected sectors; for example, increased employment and wages for workers who supply materials to the turbine assemblers.

INDUCED effects are changes in sales, income, or jobs created by changes in household, business, or government spending patterns. These effects occur when the income generated from the direct and indirect effects is re-spent in the local economy; for example, increased employment and wages for workers at the local grocery store because turbine assemblers use their increased wages to buy groceries.

Source: *Assessing the Economic Benefits of Clean Energy Initiatives*, US Environmental Protection Agency



REAL PROPERTY TAX RELIEF

through Wind Development

Approximate yearly property tax revenue from wind farms

Knox County - $800,000/year

Boone County - $800,000/yr

Custer County - $1 million/yr

8TH ANNUAL NEBRASKA Wind and Solar CONFERENCE & EXHIBITION
Turning Challenges into Nebraska Opportunities!

8th Annual Nebraska Wind and Solar Conference Announced

For Immediate Release: August 19, 2015

For More Information Contact: Nicole McDermott (402) 637-4455 (Media Inquiries); Paula Steenson (402) 346-3950 (Registration and Sponsorship Inquiries); John Hansen, Co-Chair (402) 476-8815; Dan McGuire, Co-Chair (402) 489-1346; Adam Herink, Co-Chair 402-637-4845

Lincoln, NE- The eighth annual Nebraska Wind and Solar Conference and Exhibition is planned for November 4-5 2015 in Omaha, Nebraska at the Hilton Omaha.

"We are excited to bring this convention to the City of Omaha for the first time," said Adam Herink, Conference Co-Chair. "The renewable energy industry continues to grow, innovate and create new opportunities and applications for all producers and users of electricity. This year's wind and solar conference will continue to share those ideas with the industry and the general public."

"We anticipate over 400 attendees to take part in this eighth annual Nebraska Wind and Solar Conference as it will include top quality, nationally known and respected industry experts and speakers with timely presentations related to Nebraska's growing opportunities in both the wind and solar industries," said Dan McGuire, Conference Co-Chair. "I urge potential exhibitors to sign up early to make sure they are included."

"This annual conference is considered by many to be one of the best in the United States," said John Hansen, Conference Co-Chair. "Since 2008, farmers and ranchers, state agencies, public power utilities, developers and higher education professionals have come together to share the latest information and ideas to help advance the wind and solar industry of Nebraska. We keep the costs of participation down so it is affordable to all the interested stakeholders."

Registration information is available at the conference website http://nebraskawindandsolarconference.com/ , and rooms will be $122 per night, which includes free parking. Those not staying at the hotel will receive a reduced daily parking rate of $5.

For hotel reservations, contact Hilton Omaha, 1001 Cass Street, Omaha, NE at (402) 998-3400 or http://www3.hilton.com/en/hotels/nebraska/hilton-omaha-OMACVHH/index.html.

To view last year's presentations, go to http://www.neo.ne.gov/renew/wind-working-group/2014conference/2014conference.htm.

-30-

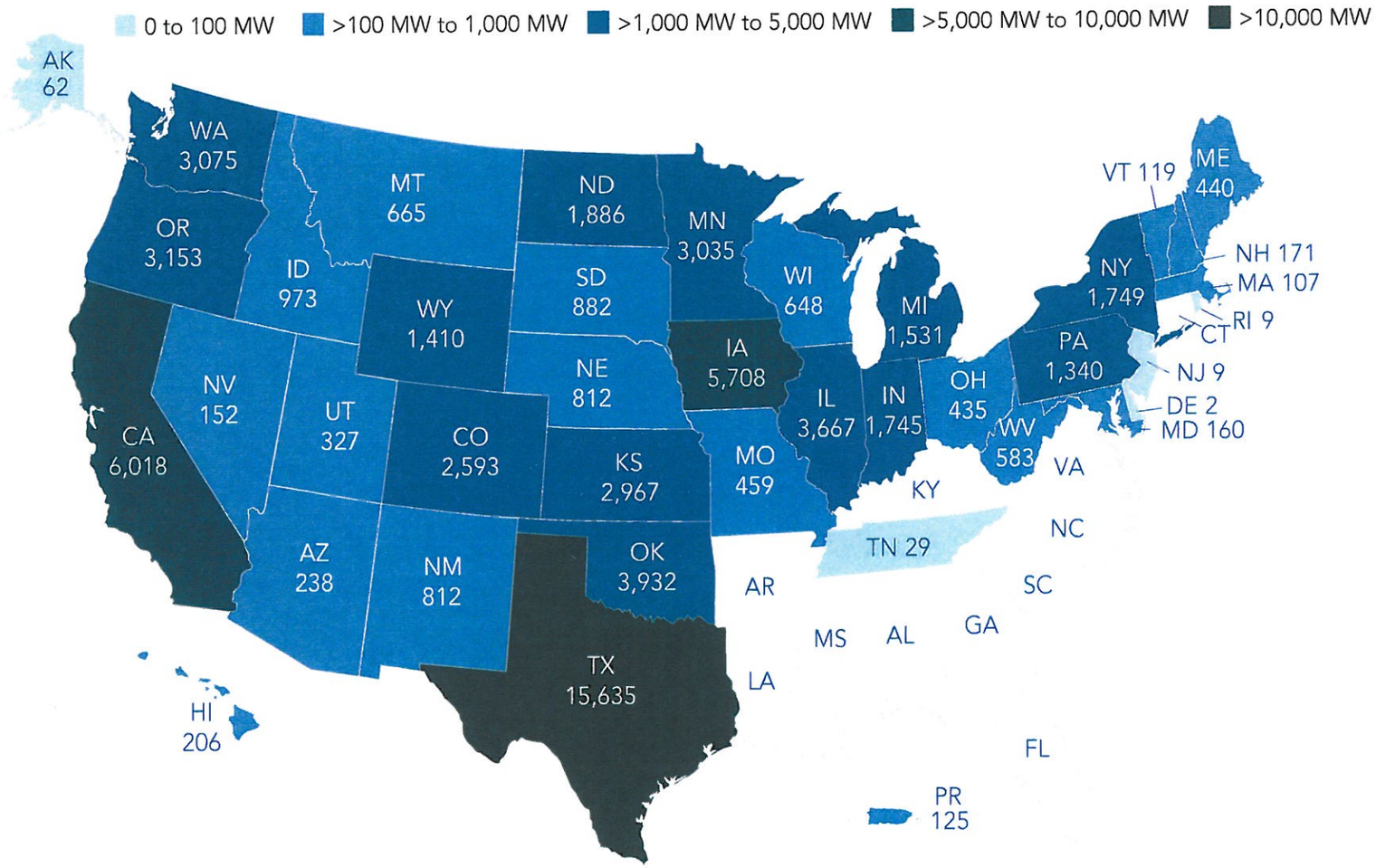
Penn State College of Agricultural Sciences, Penn State Extension
http://bit.ly/PsuFarmNoise

Table 2. Typical sound levels

Sound Levels in dB(A)	General	Agriculture
0	Threshold of hearing (Weakest sound)	
40	Quiet office, Library	
50-60	Normal Conversation	
55-70	Dishwasher	
74-112		Tractor
77-120		Chainsaw
79-89	Riding mower	
80-105		Combine
81-102		Grain dryer
83-116		Crop dusting aircraft
85-106		Orchard sprayer
85-115		Pig squeals
88-94		Garden tractor
93-97		Grain grinding
110	Leaf blower	
110-130	Rock concert	
125	Jet plane at ramp	

Published in the public interest by the Nebraska Farmers Union ~ (402) 476-8815

U.S. Wind Power Capacity Installations, by State



Nebraska Wind Generation by Utility

As of August, 2015 ~ Data supplied by the Nebraska Energy Office, LES, NPPD, and OPPD

Nebraska has 464 wind turbines with a total capacity of 808 megawatts (MW) of capacity.
Nebraska utilities have contracted for an additional 540 megawatts of capacity across 3 wind farms.

Wind Farm	Capacity (MW)	Commission Date	Location	Number of Turbines	OPPD	NPPD	LES	MEAN	Grand Island	Other
In Operation										
Salt Valley	1.32	27-Oct-99	Lincoln	2			1.2			
Valley	0.66	21-Dec-01	Valley	1	0.66					
Kimball	10.5	15-Oct-02	Kimball	7				10.5		
Ainsworth	60	1-Oct-05	Ainsworth	36	10	32		7	1	10[R1]
Elkhorn Ridge	80	1-Mar-09	Bloomfield	27	25	40	6	8	1	
Flat Water	60	21-Dec-10	Humboldt	40	60					
Laredo Ridge	80	1-Feb-11	Petersburg	54		61	10	8	1	
Springview II	3	1-Oct-11	Springview	2		3	0[R2]	0[R2]	0[R2]	0[R3]
TPW Petersburg	40.5	21-Oct-11	Petersburg	27	40.5					
Broken Bow	80	1-Oct-12	Custer County	50	18	51	10		1	
Crofton Bluffs	42	11-Oct-12	Crofton	14	13.65	21	3.15	4.2		
Steele Flats	75	1-Nov-13	Diller & Steele City	44		75[R4]				
Prairie Breeze	200	1-May-14	Elgin	118	200					
Broken Bow II	75	1-Oct-14	Custer County	42	45	30				
SubTotal	**808**			**464**	**413**	**313**	**30.35**	**38**	**4**	**10**
Under Construction										
Grande Prairie	400	31-Dec-15	O'Neill	236	400					
Prairie Breeze II	73.6	31-Dec-15	Antelope County	49			73.5			
Prairie Breeze III	36	31-Dec-16	Antelope County	20					36	
SubTotal	**509.5**			**305**	**400**		**73.5**		36	
Arbuckle	{100}[R5]	31-Dec-15	Oklahoma	67			100			
Buckeye Wind	{100}[R5]	31-Dec-15	Kansas	67			100			
Grand Total	**1,316.5**[R5]			**903**	**813**	**313**	**303.35**	**38**	**40**	**10**

Nebraska Farmers Union

Notes

NPPD=Nebraska Public Power District,
OPPD= Omaha Public Power District,
LES=Lincoln Electric System,
MEAN= Municipal Energy Agency of Nebraska,
Grand Island=City of Grand Island

R1: Jacksonville Electric Authority (10 megawatts), based in Florida. This utility will not receive power but will receive renewable energy credits for its participation in the project.

R2: NPPD takes all the energy; these other utilities do participate in the project.

R3: KBR Rural PPD

R4: NPPD takes the electricity, of which 30 megawatts are for Becton, Dickinson and Co.

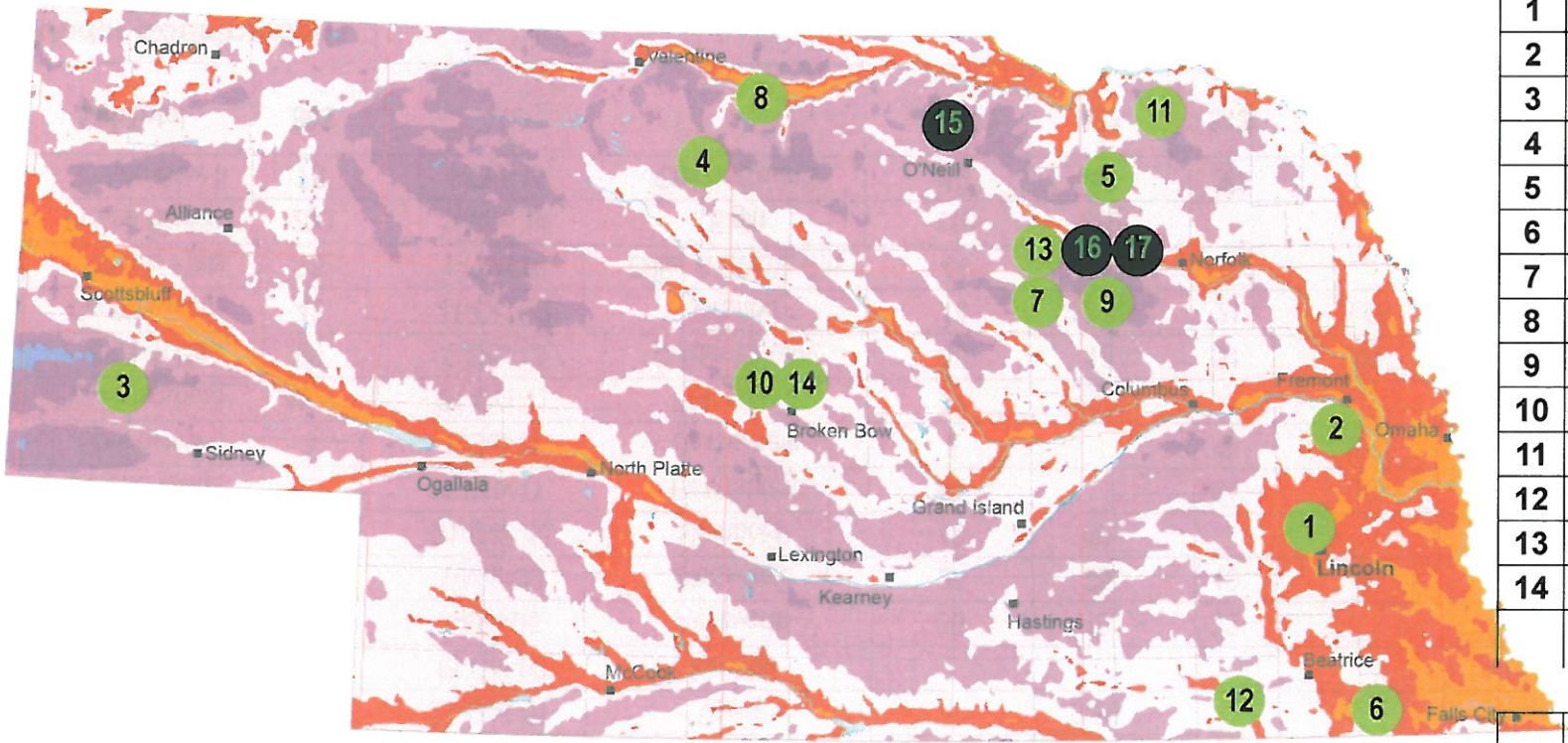
R5: LES has contracted for the electricity from two wind farms, Arbuckle and Buckeye Wind, that are located in Oklahoma and Kansas respectively. Their capacity is not counted in this inventory of *Nebraska* wind capacity.

Note that the wind generation capacity documented here is dedicated to a Nebraska Public Power utility. There may be other capacity.

For up-to-date energy production data as well as information about the generating capacity of wind farms dedicated to Nebraska utilities, visit

Http://bit.ly/NeoWindGeneration

Contact John Atkeison at (402) 476-8815
info@NebraskaFarmersUnion.org



NREL
NATIONAL RENEWABLE ENERGY LABORATORY

AWS Truepower
Where science delivers performance

	Wind Farm	Capacity (MW)	Commission Date
	In Operation		
1	Salt Valley	1.32	27-Oct-99
2	Valley	0.66	21-Dec-01
3	Kimball	10.5	15-Oct-02
4	Ainsworth	60	1-Oct-05
5	Elkhorn Ridge	80	1-Mar-09
6	Flat Water	60	21-Dec-10
7	Laredo Ridge	80	1-Feb-11
8	Springview II	3	1-Oct-11
9	TPW Petersburg	40.5	21-Oct-11
10	Broken Bow	80	1-Oct-12
11	Crofton Bluffs	42	11-Oct-12
12	Steele Flats	75	1-Nov-13
13	Prairie Breeze	200	1-May-14
14	Broken Bow II	75	1-Oct-14
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	Under Construction		
15	Grande Prairie	400	31-Dec-15
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